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ABSTRACT

The report is a one shot followup study of 128 secondary school students who had completed a health careers course at Jefferson High School in Roanoke, Virginia. The response rate was 87 percent. The former students were surveyed by questionnaire to determine the effectiveness of the program and to provide data relevant to program improvement. It was found that 48 percent of the respondents were employed in the field of training, and also that part-time work experience as a student increased the related employment to 80 percent. Also revealed was that part-time work experience increased the percentage of students who sought additional education. The program aided 88 percent of the students in making career choices, and 79 percent felt prepared for all occupational experiences. A high degree of job satisfaction was reported. The most frequent suggestion for course improvement was for more "hands on" experiences during class time. Overall, the program was found to be effective in meeting its objectives. The six-page questionnaire and samples of related correspondence are appended. (Author/NJ)

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FINAL REPORT

AN EVALUATION OF THE HEALTH CAREERS PROGRAM AT JEFFERSON SENIOR HIGH SCHOOL

Conducted Under
Part C of Public Law 90-576

ROMONA PERRY WILLIAMS
Principal Investigator

ROANOKE CITY PUBLIC SCHOOLS

Vocational and Adult Education
Roanoke City Public Schools
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May 30, 1975

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CHAPTER I

INTRODUCTION

THE PROBLEM

Since the passage of the Smith-Hughes Act in 1917, programs of vocational education have been developed and implemented throughout the United States. The major purposes of the 1917 Act were to prepare youth and adults for employment, to assist employed workers to gain advancement, and to improve home and family life.

Vocational education has been a part of the curricular offerings of the Roanoke City Schools since 1936, when classes in bricklaying and ornamental plastering were established. Many changes and additions to the vocational offerings have been made through the years involving the construction of new buildings, renovation of others and the addition and expansion of programs.

In 1968, the Roanoke City Public Schools expanded its vocational offerings at Jefferson High School to include courses in health careers and industrial cooperative training. The course "Health Careers" was originally funded under Title III, Exemplary Programs for the Inner City, (E.P.I.C.). Its purposes were to (1) introduce the student to the career opportunities in the health care field, (2) provide skill training to prepare the student for

entry level positions as nurse aides, dietary aides, child care aides or as housekeeping aides, (3) provide placement in one of these positions as a part of a work-study program, (4) stimulate the student to further her education to the limits of her capabilities, and (5) provide knowledge and skills that will assist the student in home and family life.

This program began as a one period, five day a week, course extending for a two-year period of time. The first year being a classroom, field trip centered one of exploration and skill development. The second year was the work-study phase of the program. This format was followed during the first three years of the program's existence. Beginning with the 1971-72 school year, however, both the format and the funding of the program were changed. The program was expanded to three years in length with the first year being an exploratory and introductory course entitled "Health Careers I" which meets one period during each school day. The second year was inserted as a two-period, five day a week, course for skill training and development with clinical practice as well as classroom work and was called "Health Assistants." The third year was called "Health Careers II" which remained as the work-study phase. The funding came under the State Department of Education as a program for the Disadvantaged. This is the present structure of the program. Changes were made solely on the basis of instructor-supervisor judgment without any formal or structured evaluation of the need for the change.

Shertz and Stone (1971) state that:

> The fundamental nature of evaluation consists in judging the worth "of an experience, idea, or process." The evaluation. . . enables school personnel to judge how well they are doing and results in bases for deciding the nature of improvements if they are needed. Dressel and his associates (1961) have aptly stated that "failure to engage systematically in evaluation in reaching the many decisions necessary in education means that decisions by, prejudice, by tradition, or by rationalization is paramount . . ."

STATEMENT OF THE PROBLEM

This study was done because the Health Careers program had never been evaluated in terms of how well it met its objectives. There is no data on which to base decisions relative to program expansion or changes in teaching strategies.

OBJECTIVE OF THE STUDY

The objectives of the study were to:

1. Determine the effectiveness of the Health Careers program in guiding students in their career choice.
2. Establish the degree to which knowledge and skills gained by students in the Health Careers program helped them prepare for employment.
3. Show the effectiveness of the Health Careers program as related to full-time placement of students.
4. Provide information for use in the improvement of instruction.
5. Produce data for use in decision making related to the proposed future expansion of this program in the Roanoke City Public Schools.

LITERATURE REVIEW

The purpose of this section is to review literature of related research of vocational courses to provide insights to guide the observer in this follow-up study of the students who have been exposed to the Health Careers program.

In this day of stress on accountability and being sure that all students leave the secondary schools with a salable skill, it is important that vocational educators become aware of how well their programs are achieving these ends. Follow-up studies of former students are one way that this can be assessed.

The review of literature has provided a wealth of information of research that has been done on various levels in the vocational educational programs. For the purpose of this study, the review has been limited to the more recent efforts.

Hemler (1972) found in his study of secondary school students in California that students who participated in a Vocational Education program and obtained some type of marketable skill have a higher success rate in gaining employment upon graduation from high school than general curriculum high school students. He also found a higher percentage of participation in postgraduate education among the vocational student.

Workman (1969) found similar results in a study he did of industrial cooperative training students in Northern Virginia. Three to six years after graduation, seventy-three percent of the students were employed in

occupations related to their training.

Weiss (1971) found in her study of clothing and textile programs in Wisconsin that over one-half of the former students were employed with about nine percent being unable to find suitable work in the area of training. She also found that more of the former students were satisfied with their jobs than were not.

Eninger (1965) found that less than one-half of the graduates of the vocational programs he studied were placed, on their first jobs, in areas that were highly related or related to their training.

Easley (1971) in his study of graduates from a laboratory technician program concluded that in terms of directly related employment to the training field, the program was a failure. The students did not feel they were adequately prepared and that the job opportunities in that particular field were declining. The opportunities for advancement were found to be stagnant. The students were critical of the program. He recommended that the length of time spent in the program be shortened to one year, and the emphasis be redirected to an area where jobs were available.

Vicars (1973) in his study for curriculum change found that the graduates felt a need for more "hands on" experiences. The most important skills for new graduates in entry level jobs were (1) theoretical knowledge, (2) manual skills, (3) personal relation skills, with the need for additional training in each of these areas.

Peterson (1972) found in a follow-up study of health occupation students that the school needed to include more clinical experience in their offerings and to encourage male students to enroll.

Baldree (1972), in her study of business majors in a secondary school in Tennessee, found (1) there has been no curriculum change in ten years, (2) the unemployment rate of business graduates was higher than that of the general population, (3) seventy percent of the former students did not feel their training was adequate, and (4) only one-half of those employed were working in the business field.

Reich and Zeigler (1972) found through telephone interviews of graduates of special vocational programs that there was a moderate relationship between jobs and training two years after training. They found approximately seventy percent of the former students were employed and about two percent attended a postgraduate educational program. There was lack of a strong relationship between training and type of placement and between school success and job skill. Despite this, students tended to feel that shop work was the most important part of their schooling and slightly over one-half felt that the program prepared them adequately for getting a job.

Sumpter (1969), in his follow-up study of vocational students, found that thirty percent of the students studied found their first job in the same or closely related trade as the one studied in secondary school, and about twenty-six percent found employment in a somewhat related field.

Forty-three percent went to work in unrelated trades. At the time of the study forty-nine and three-tenths percent of those employed were in a job related to their training area. There was some indication found in the study that shop courses provided motivation and aided in producing cooperation among the students.

In "Work Experience Career Exploration Program Advisory Committee Report" (1972), the findings indicate that the work experience improved behavior, specifically; attendance, attitudes, cooperation and pride in work, but not in grades of the students.

However, in a study done by Fielstra and Rosenquist (1971A), it is reported that the program of Introduction to the Allied Health Professions in which the student progressed to actual work experiences, that motivation was improved which resulted in higher grades and less "school leaving" but had little effect on attendance.

Much of the literature reviewed related to how to evaluate vocational education programs. Kaufman (1971) stressed the need to refrain from making unwarranted conclusions about the value of vocational schools and their programs and the desirability of identifying factors producing the outcomes of evaluations.

Strohbusch (1972) cautioned about making programs for the disadvantaged too academic. He described some of the characteristics of a good program and his guide for evaluation of programs used a questionnaire.

The Occupational Education Research Project of North Carolina (1972) developed an instrument that used questions such as (1) Are you presently employed at a job for which you were trained in the secondary school? (2) If not, why not?

This report as well as Fuller (1972), and Fielstra and Rosenquist (1971B) and Byram and Robertson (1971) gave aid to the observer by including sets of instruments to be used in the appraisal of programs and obtaining data on the graduates of the programs.

This review of literature has provided a great many sources of studies with information concerning the elements of vocational and health occupation programs. It has indicated that placement in related fields may be somewhat lower than desirable and that vocational educators are concerned with what happens to their students after graduation.

SUMMARY

There is evidence that vocational education graduates find jobs sooner after graduation than non-college academic graduates. Former students expressed the need for more practical "hands-on" experience in their programs. Between 49 and 73 percent of the vocational graduates surveyed for these studies were employed in an area related to their training. The skills that new graduates felt most important to them were (1) theoretical knowledge, (2) manual skills and (3) personal relationship skills.

BASIC ASSUMPTIONS

The following assumptions were based upon logical reasoning and empirical evidence: (1) It is assumed that if fifty percent of the respondents to this study are in a field related to the one of training, the program is as successful as most vocational education programs. (2) Also assumed is that the changes made in this program to include actual clinical experience should result in being a positive improvement in the program.

DEFINITION OF TERMS

For the purpose of this study, the following terms are defined to provide clarification:

1. Health Careers Program: refers to any of the courses offered since 1968 and carrying the title of Health Careers I, Health Careers II, or Health Assistants.
2. Career decision: refers to the choice of the student to either enter or not to enter one of the health care occupations.
3. Health care field or occupation: refers to the more than 200 health occupations as identified in the Dictionary of Occupational Titles.
4. Follow-up: refers to a service intended to secure information about former students concerning their experiences relating to vocational selection, training, and placement.

5. Evaluation: refers to measuring the results of the Health Careers Program on information supplied by former students and comparing this information to the objectives of the program.

6. Student, respondent and former student: refers to persons who have successfully completed one or more years of the Health Careers Program and are no longer a student in a secondary school.

LIMITATIONS OF STUDY

This study was limited to the 128 former secondary school students who had completed all or part of the Health Careers Program at Jefferson Senior High School.

It was also limited by the fact it is a One Shot Case Study without a control group nor any baseline data. The findings of this study cannot be attributed to the Health Careers Program since other causative factors could not be controlled. It can only be assumed that the program influenced the findings.

ORGANIZATION OF REPORT

Chapter I has presented the problem, the objectives of the study, a review of related literature, the basic assumptions, the definition of terms and concluded with the limitations of this study.

Chapter II will include the guidelines used to identify the population to be surveyed, the design of the study, how the instrument was developed, the procedures used to collect the data and what statistical methods were used to analyze the data.

Chapter III will present the findings and give the conclusions and recommendations.

The report will conclude with a bibliography and appendix having the instruments used in the data gathering procedure.

CHAPTER II

RESEARCH METHODOLOGY

INTRODUCTION TO PROCEDURES FOR CONDUCTING THE RESEARCH

The population used in this study was the total target population. An attempt was made to solicit a response from all the former students of Jefferson Senior High School who completed a Health Careers or Health Assistants course. Their names and addresses were secured from school records.

The data for this study was collected by use of a "closed-form" survey questionnaire that was sent to each former student (see Appendix B). The questionnaire was designed to be one of check list reply as much as possible. It contained as few questions as possible to get the information required.

Questionnaires were mailed to former Jefferson Senior High School students who participated in the Health Careers program during the period 1968-1974. A clinical thermometer enclosed in a carrying case was sent to each respondent as a strategy for increasing the return of questionnaires.

The questionnaire was formulated with reference to (1) the objectives of the study, (2) the objectives of the Program (3) instruments cited in

the literature review and (4) the help and advice of the Project Consultant.

Follow-up mailings were made five days after the initial mailing of the survey instrument. (See Appendix C) Two postcards were mailed -- one to those who had replied thanking them for their cooperation and the other to non-respondents as a reminder to return the questionnaire as soon as possible.

The third mailing was made fourteen days from the first contact. The same mailing procedure as previously described was used.

The fourth contact was made two weeks later (twenty-eight days from the first mailing). It went only to those who had not replied. This contact was in the form of a letter signed by the investigator requesting their cooperation. Included was another questionnaire and a stamped pre-addressed envelope.

An attempt was made after another two weeks to contact the non-respondents by telephone to ascertain if there were any significant difference between the non-respondents and those who did respond. These findings are reported in the procedure section of this chapter.

The data collected was tabulated manually and analyzed by using Chi Square and Pearson Product-Moment Correlation Coefficient.

POPULATION AND SAMPLE

The population in the study consisted of the students who had been enrolled in the Health Careers Program at Jefferson Senior High School

during the period 1968-1974. These students were selected for this program in the basis of meeting the criteria for the "disadvantaged" and expressed interest or in the hopes of finding a field of interest. The first students were admitted as sophomores or juniors in the 1968-69 school year. This study includes all those enrolled who either graduated or left school between 1969-1974.

DESIGN

This study best fits the pre-experimental design category. (Campbell and Stanley, 1963). This design is most appropriate in that it describes or explains the status of individuals after experiencing some type of educational intervention. The design may symbolically be written as X O.

Where: X = exposure to an educational intervention

O = observations recorded or made on subjects following their experiences with the educational intervention.

Specifically for this study,

X = Jefferson High School Health Careers Program

O = responses of former students on the measures of employment, additional education, job satisfaction, evaluation of the course required for graduation.

The threats to the internal validity in this design that are applicable to this specific study are those of history and maturation.

Since the background of each subject varied and no attempt was made to evaluate or equalize their experiences before exposure to the Health Careers program, the extraneous variable of history could have an affect on the data obtained from the questionnaires.

The passage of time since exposure to the Health Careers program with the varing experiences of the students during this time could not be controlled nor accurately measured. Therefore, the extraneous variable of maturation could have affected the replies given on the questionnaire.

The findings of this study cannot be generalized to other groups nor can a cause and effect comparison be made.

DATA AND INSTRUMENTATION

Instrumentation

The instrument used in this study was a follow-up survey questionnaire. This questionnaire (See Appendix B) was developed after consulting the references cited in the literature review and the project consultant. The objectives of this study and of the Program provided guidelines for the items used in the questionnaire.

After the instrument was developed, it was "field tested" by secondary school students of similar background who had been enrolled in the Health Careers program. They were then interviewed to determine their reaction to the questions, their understanding of the directions, and if they understood the questions as the investigator intended. Unclear questions were

restated or deleted and the redesigned questionnaire was reproduced and readied for mailing.

Pre-addressed envelopes were printed to include with the questionnaire for return.

A cover letter was written (See Appendix A) to be included in the mailing. The "surprise gift" mentioned in the letter was a clinical thermometer enclosed in a plastic carrying case. The retail value of this thermometer was $1.98 with the cost to the project being 89¢ each.

Data Collection Procedure:

An attempt was made to locate all 128 former students. Their names were secured from class roll books and the original address from student directories.

The first mailing of the questionnaire, cover letter and pre-addressed stamped envelope went to all 128 former students. Many were returned stamped "Addressee Unknown" or "Moved - No Forwarding Address." For these students' school records were searched for parents' names, places of employment, brothers and sisters' names or any other information that would yield a clue as to where to search for correct addresses. The city directory, telephone book, neighborhood visits, and retail credit bureau were also used. In some cases, this search took three weeks. Questionnaires were delivered to 120 of the former students. Of the eight that could not be located, all have been out of the school system since 1970.

Five days after the first mailing, postcards were mailed to all 128 students. If they had returned the completed questionnaire, the card was to thank them for their cooperation; otherwise, it was to remind them of the questionnaire and urged them to reply (See Appendix C).

Thank you cards and the incentive gift of a thermometer were mailed as the completed questionnaires were returned. A second reminder card was sent fourteen days from the first mailing.

After twenty-eight days, a personal letter was sent to each non-respondent along with another copy of the questionnaire. The total percentage response was 87 percent. (104 former students from a total of 128 responded.)

An attempt was made to contact the non-respondents by telephone. Contact was made with either the former student or a relative of the former student in nine of the sixteen cases. Two of the former students were in the military, one in a health occupation, one not; five were unavailable for employment due to home and family responsibilities; one was still employed at her first health occupation job which she started on a part-time basis while still in high school, and the other former student was employed in a non-health related industry. Seven of the non-respondents could not be contacted. The characteristics of the non-respondents contacted were similar to those who responded in that of those employed fifty percent were in a health occupation and fifty percent were not. Five, or fifty-six percent of those non-respondents contacted were

available for employment while among the respondents only twelve percent fell in this category.

In all, some contact was made with 88 percent of all 128 former students; 81 percent completed questionnaires, 7 percent were contacted by telephone, 6 percent could not be located for mailing nor telephone contact, and 6 percent received questionnaires which were not returned and no telephone contact was made.

STATISTICAL ANALYSIS AND TREATMENT OF DATA

The data, primarily nominal and interval, were subjected to analyses via parametric and non-parametric statistical methods. The parametric statistical test was the Pearson Product Moment Correlation Coefficient or it is simply termed the Pearson r; and the non-parametric statistical test was the Chi Square test (x^2) of Goodness of Fit. The Yates Correction for continuity was employed when df = 1.

The following null hypotheses were tested with the alpha level set at the .05 level of statistical significance:

1. Students who were not involved in part-time course related work experience will be employed in a health occupation with as much frequency as those who had the work experience.
2. Further educational training will be sought equally by students who had course related work experience and those who did not.

3. Job satisfaction in the areas of the nature of work (self-satisfying, etc.) and the task assigned to do will not be affected by additional education beyond the secondary school Health Careers program.

CHAPTER III

ANALYSIS AND FINDINGS

It is the purpose of this chapter to present the findings of the study. The data will be presented corresponding to the null hypotheses presented on page 18. The remainder of the chapter will be organized relative to the basic assumptions postulated on page 9 and the objectives of the study as stated on page 3.

Null Hypothesis One:

Students who were not involved in part-time course related work experience will be employed in a health occupation with as much frequency as those who had the work experience.

Data relative to the employment status were collected from 104 former health career students. A contingency table analysis including the calculation of Chi Square was used to test the null hypothesis of goodness of fit between the employment status of those former students who had participated in course related work experience and those who had not. Table 1 reveals that the Health Career graduate who had participated in the work experience phase of the program obtained employment in a health occupation to a significantly greater extent than did those who has not participated in this phase of the program.

Table 1

Relationship of Work Experience to Employment Status

Employment Status	Work Experience Number	Work Experience Percent	No Work Experience Number	No Work Experience Percent
Employed Health Occupations	20	80	10	26
Not Employed Health Occupations	5	20	28	74
Total	25	100	38	100

Chi Square = 15.34; df = 1; $p < .0001$

Null hypothesis One was rejected at the .001 level of significance.

Null Hypothesis Two:

Further educational training will be sought equally by students who had course related work experience and those who did not.

Data relative to the additional educational experiences was collected from 90 former students. Table 2 was constructed using the same procedures as with Table 1 to test the relationship between the educational status of those former students who had participated in course related work experience and those who had not. Revealed in Table 2 are findings that those students who had work experience sought additional education more frequently than those who did not have course related work experience.

Table 2

Relationship of Work Experience to Educational Status

Educational Status	Work Experience Number	Percent	No Work Experience Number	Percent
No Further Education	9	29	32	54
Further Education	22	71	27	46
Total	31	100	59	100

Chi Square = 4.25; df = 1; $p < .05$

Null hypothesis two was rejected at the .05 level of significance.

Null Hypothesis Three:

Job satisfaction in the areas of the nature of the work (self-satisfying, etc.) and the task assigned to do will not be affected by additional education beyond the secondary school Health Careers program.

Data relative to the extent of job satisfaction were collected from 75 former students who were employed at the time of the survey. Again the Chi Square was calculated to test the goodness of fit between job satisfaction and the educational status of the former students. Tables 3 and 4 reveal that education beyond the basic vocational course increased job satisfaction in the areas of satisfaction with the nature of the work done and the types of tasks required.

Table 3

Satisfaction with the Nature of Work

Educational Status	Satisfied Number	Satisfied Percent	Dissatisfied Number	Dissatisfied Percent
No Additional Education	18	33	14	70
Additional Education	37	67	6	30
Total	55	100	20	100

Chi Square = 4.25; df = 1; $p < .05$

Table 4

Satisfaction with the Tasks Assigned

Educational Status	Satisfied Number	Satisfied Percent	Dissatisfied Number	Dissatisfied Percent
No Additional Education	21	36	12	67
Additional Education	37	64	6	33
Totals	58	100	18	100

Chi Square = 4.022; df = 1; $p < .05$

Null hypothesis Three was rejected at the .05 level of significance.

Basic Assumption One:

It is assumed that if fifty percent of the respondents to this study are in a field related to the one of training the program is as successful as

most vocational education programs.

Table 5 reveals that 33 percent of the former students in the Health Careers program during the period covered by the study were employed in health occupations. However, when only those who were available for work are considered and those enrolled in a Health Occupation educational program are included, the percentage changes to 48 percent.

Table 5

Employment and Educational Status

Employment Status	Number		Percent	
Employed in Health Occupation		34		33
Employed Unrelated Field		31		30
Unemployed		39		37
Looking for Job	12		12	
Unavailable for Job	13		12	
Enrolled in Education Program	14		13	
Health Field	10		9	
Other (Business)	4		4	
Total		104		100

The literature review indicated that vocational programs could expect to have between fifty and seventy percent of their graduates employed in a field related to their vocational training. The first basic assumption was supported by the data in Table 5.

Basic Assumption Two:

Also assumed is that the changes made in this program to include actual clinical experience should have a result of being a positive improvement in the program.

The findings reported in Table 1 that those students who had work experience where employed in a health occupation to a significantly greater extent than those who did not have course related work experience, most definitely suggests that "hands on" work experience makes a difference in the students career choice and choice of employment.

Another factor of significance relating to the work experience phase of the program is shown in Table 2. Revealed in this table is data that tends to support the findings of Felstra and Rosenquist (1971A) that school leaving (education continued) was diminished when work experience was included in a career program for the disadvantaged. These findings support the second basic assumption.

Objective One of this Study:

Determine the effectiveness of the Health Careers program in guiding students in their career choice.

Data relative to the influence the Health Careers program had on career choice was collected from 94 former students. As shown in Table 6, eighty-eight percent of these students felt that the program had assisted them in their career choice.

Table 6

Career Choice Assistance

Extent of Assistance	Number	Percent
None	9	10
Little	2	2
Some	19	20
Moderate	21	23
Major	43	45
Total	94	100

Objective Two of this Study:

Establish the degree to which knowledge and skills gained by students in the Health Careers program helped them prepare for employment.

Data was collected from between 96 and 100 former students relative to how well prepared they felt they were after having the Health Careers program in the areas of (1) ability to work with supervisor and fellow employee, (2) having the necessary skills for the job, (3) completing an application and job interview, (4) all other occupational experiences. As revealed in Table 7, more former students felt prepared than not prepared.

Table 7

Preparation for Employment

Area of Preparation	Prepared Number	Prepared Percent	Not Prepared Number	Not Prepared Percent
Work with supervisor and fellow employees	83	87	13	13
Necessary skills	70	72	27	28
Application and job interview	85	86	13	14
All occupational experiences	79	79	21	21

Objective Three of this Study:

Show the effectiveness of the Health Careers program as related to full-time placement of students.

Data was collected from 104 former students concerning where they secured assistance in finding a job and how much assistance they received. Table 8 reveals that more students sought the assistance of the Health Careers Coordinator than any other individual or group and that they seemed to feel they received more assistance from the Coordinator than from other sources.

Table 8

Sources of Assistance in Finding Jobs
and Extent of Help Received

Sources of Assistance	Helped Greatly		Helped Some		Helped Little		Aid Not Sought	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Health Careers Coordinator	61	68	6	8	3	3	21	21
State Employment Office	8	9	11	13	11	13	57	65
Parents and Relatives	15	17	26	30	11	13	34	40
School Officials	17	20	19	22	10	15	39	43
Private Employment Office	4	5	2	2	3	4	74	89
Other	11	46	2	8	0	0	11	46

In addition to the placement of students at the completion of the program, students were placed in job situations while still in school. Thirty-one of the students were placed on the job. This was all of the students who sought this service.

Data was collected from 34 former students who were employed in a health occupation to determine the extent of job satisfaction in twelve different areas. Table 9 reveals that more respondents experienced satisfaction in all areas except that of pay.

Table 9

Extent of Job Satisfaction in Health Occupations

Element of Satisfaction	Satisfied		Dissatisfied	
	Number	Percent	Number	Percent
The pay	17	50	17	50
Amount of work	28	85	5	15
Working conditions	28	82	6	18
Task assigned to do	28	82	6	18
Advancement made	24	70	10	30
Possibility for future advancement	22	65	12	35
Relationships with co-workers	34	100	0	0
Relationships with supervisors	32	94	2	6
Fringe benefits	22	65	12	35
Job security	29	85	5	15
Nature of work (self-satisfying, etc.)	30	90	4	10
Hours of work	30	90	4	10

Tables 8 and 9 suggest that 79 percent of the respondents sought and received assistance from the program coordinator in finding employment and that employment resulted in satisfactory job placement in the majority of the cases.

Objective Four of this Study:

Provide information for use in the improvement of instruction.

Information was collected by the use of open ended questions to determine what areas of instruction was helpful to the former students and what areas needed strengthened.

Ninety-eight percent of the respondents felt the Health Careers program provided them with knowledge and skills that were useful in everyday life. The areas of instruction they felt most useful were: (1) care of the sick in the home, (2) understanding the function of their own bodies, (3) child growth, development and care, and (4) medical terminology. Two percent of the students stated they could see no application of what they learned to their home and family life.

The respondents were asked to make suggestions for the improvement of the Health Careers program. Sixty of them chose to do so. Many of the comments were in context "don't change anything," but several had some good observations and suggestions, many of which have already been incorporated in the program.

The suggestion that was repeated most often was to provide an opportunity for the student to spend time in the hospital actually working with the professionals, learning and practicing skills. This type of experience was begun on a limited basis in 1972-73 school year and had been increased each year. This finding seems to support this change in the program which was instigated on instructor and supervisor feelings of need.

Another suggestion was to include more items such as field trips to health care facilities, guest speakers (former students who have gone into a health occupation), demonstrations of skills needed in different occupations and a chance to practice these skills. All these suggestions seem to point to the statement of one former student "get the student more involved."

Other recurring suggestions were (1) longer class time, (2) more medical terminology, (3) smaller classes and more individual attention (another stated this same idea as "help the student feel more secure"), and (4) help the students know how to study.

Data was collected from 104 former students as to what the areas of life adjustment were of concern to them following completion of high school. Table 10 tabulates the areas of concern. This table reveals that respondents felt more concerned in the areas of finding a job and financial problems than in other areas.

Table 10

Areas of Concern After Completing High School

Concern	Much Concern Number	Much Concern Percent	Little Concern Number	Little Concern Percent	No Concern Number	No Concern Percent	Does Not Apply Number	Does Not Apply Percent
Find a job	52	50	16	15	15	14	9	9
Adjusting to work life	43	41	19	18	19	18	11	11
Getting out on my own	40	38	19	18	14	13	17	16
Adjusting to married life	27	26	9	9	10	10	39	18
Financial problems	48	46	23	22	7	7	13	13
Succeeding in college	22	21	9	8	11	11	49	47
Others	5	5	0	0	1	1	7	7

This data indicates that the respondents felt that instruction in (1) care of the sick, (2) structure and function of the human body, (3) child growth and development was helpful to them regardless of employment.

Also revealed by the data collected was the need to strengthen the program in the areas of; (1) medical terminology (2) more practical experience and (3) study skills.

Suggestions for teaching strategies included; (1) more related field trips, (2) more demonstrations of skills (3) use of guest speakers that were former students (4) giving the student a chance to be more involved and (5) more individual attention to students needs.

The areas of concern that students have after graduation indicates the need to provide additional assistance in job finding. Instruction should be strengthened in money management and budgeting as well as interpersonal

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relationships in adjusting to the work situation, marriage and/or college.

Objective Five of this Study:

Produce data for use in decision making related to the proposed future expansion of this program in the Roanoke City Public Schools.

The data collected from the 104 former students has provided a positive impact for planning program expansion to the city's other high school.

The findings of this study show that the program has met its objectives of (1) introducing the student to the career opportunities in the health field, (2) providing skill training to prepare the student for entry level positions as nurses aides, dietary aides, child care aides, or housekeeping aides, (3) providing placement in one of these positions as a part of a work-study program, (4) stimulating the students to further their education to the limits of their capabilities , and (5) providing knowledge and skills that will assist the student in home and family life.

The former students expressed their satisfaction with the program, that it met their needs and that the information gained was useful not only in a health occupation but in other aspects of their home, family and working life.

Also expressed by the former students in their suggestions for course improvement was the feeling that the opportunity to participate in this program needed to be made available to all students in the secondary schools.

Data was collected to determine what value the former students placed on the State required courses in relation to their present employment. Table 11 relates that the respondents felt that English Composition, Mathematics, Biology, Physical Education and Literature had more value to them than History and Government.

TABLE 11

Course Value to Former Student in Present Occupation

Course	Much Value		Some Value		Moderate Value		Little Value		No Value	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
English Composition	37	36	23	22	21	20	12	12	2	2
Mathematics	53	51	20	19	16	15	5	5	2	2
History	5	5	14	13	29	28	29	28	19	18
Government	8	8	18	17	18	17	30	29	21	20
Biology	34	33	21	20	5	5	14	13	18	17
Physical Education	24	23	28	27	19	18	13	13	12	12
Literature	13	13	22	21	24	23	20	19	15	14

Correlations were done using Chi Square between those respondents who had additional education and those who had not and their value rating of the required courses. There were no statistically significant differences.

This data indicates the need to further evaluate the State required courses to determine their relevancy to the working life and citizenship of graduates.

The data revealed that 30 percent of the students sought and were placed in part-time course related employment. This indicates that the employment phase of the program has not been developed to include all students. This aspect of the program needs further study to determine the reason for lack of utilization of the service. If the lack of available jobs in this area is a factor, then the expansion of the program would not be as beneficial as developing a program in another career cluster area.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

One hundred and four former students (81%) were surveyed by questionnaire to determine how well the Health Careers program at Jefferson High School was meeting its objectives and to provide information for program improvement and possible expansion.

The data collected seemed to indicate that the program was effective in assisting the students in a career choice, providing them with job entry skills, knowledges and skills useful in everyday life and assisting them in finding employment. They indicated a high degree of job satisfaction.

Forty-eight percent of the former students available for employment were employed in a health occupation. Of those not employed in a health occupation, 50% had completed only the exploratory phase of the program.

One of the most valuable aspects of the program was the work experience phase which allowed the student a chance to try out their occupational choice. This experience influenced the students employment after secondary school (increased percentage employed in health occupations). A greater percentage of the students who participated in the work experience sought additional education or training.

The data from this survey indicated the need to continue the "hands on" experiences of the student and to increase their exposure to real situations encounted in health occupations. It is also pointed out the need to maintain relatively small classes so that all students receive adequate individual attention. More emphasis needs to be placed on the language of medical related careers. The length of each class period needs to be examined and evaluated in more depth.

This data would indicate that the program has filled a need for the students it served. All aspects of the program needs to be considered along with area manpower needs and clinical experience opportunities when making a decision regarding expansion of this opportunity to all students in the school division.

Findings of this study seem to indicate the need for further evaluation of the subjects required by the State of Virginia for high school graduation. Students seemed to feel some of the courses had little value in their occupational experiences.

APPENDIX

Roanoke City Public Schools
Division for Educational Programs
Department of Vocational and Adult Education
P. O. Box 2129, Roanoke, Virginia 24009
40 Douglass Avenue, N.W.
(703) 981-2661

Dear

Your help is urgently needed !! The Health Careers Program at Jefferson High School has just completed its sixth year. You can assist me in determining its usefulness to past students and to improve the course for future students.

Enclosed is a questionnaire that I would like for you to complete and return by October 25, 1974. I have a "surprise" gift for you if you will complete the questionnaire now and return in the stamped, self-addressed envelope today.

Thank you for this very important contribution. You may be assured that after the data are transferred to computer cards this questionnaire will be destroyed.

Sincerely,

Romona P. Williams
Health Careers Coordinator

RPW:jw

Enclosure

Appendix B Code No. ____

FOLLOW-UP QUESTIONNAIRE

ALL RESPONSES WHICH YOU GIVE WILL BE HELD STRICTLY CONFIDENTIAL

General Directions: Please complete all sections that apply. When you have completed the form, return it in the enclosed return addressed, stamped envelope to:

Mrs. Romona P. Williams
Jefferson Hall
550 Campbell Avenue
Roanoke, Virginia 24016

I. Personal Information:

Directions: Please check the item in each area which applies to you.

1. Marital status
_____ single _____ divorced _____ widowed (or widower)
_____ married _____ separated

2. Age at last birthday
____ 17-19 ____ 20-22 ____ 23-25 ____ 26-28 ____ 29 & over

3. Year graduated from high school
_____ 1969 _____ 1970 _____ 1971 _____ 1972 _____ 1973
_____ 1974 _____ Did not complete high school

4. Present location
_____ Virginia _____ out of state

II. Employment Information

Directions: Please check the item in each area which applies to you.

5. I am employed in a
_____ Health occupation - please state position _____ (such as LPN)
_____ Other - please state field of employment _____

6. _____ I am unemployed, and I am looking for a job.

7. I am unavailable for employment because of one of the reasons given below:
_____ Presently enrolled in educational program
_____ Illness
_____ Home responsibilities
_____ Pregnancy
_____ Other

8. If not employed in a health occupation, please state the reason.
   _____ Position not available
   _____ Do not like this type work
   _____ Pay scale too low
   _____ Did not have enough training to get a job
   _____ Other _____

III. Employment Finding Assistance

Directions: Please rate each of the sources below on their helpfulness to you in finding your first job. Place a check to indicate how helpful each source was.

Source of Information	Helped Greatly	Helped Some	Helped Little	Aid Not Sought
9. Health Careers teacher				
10. State employment office				
11. Parents and relatives				
12. School officials (principal, guidance, other teachers.)				
13. Private employment office				
14. Other _____				

IV. Additional Training:

Since attending Jefferson High School, what further educational training have you been involved with? You may check more than one.

_____ 15. None

_____ 16. Public area vocational school program (such as Practical Nurse Program)

_____ 17. Private area vocational school program (such as Business College)

_____ 18. Hospital based health occupation training program

_____ 19. Apprenticeship

_____ 20. College or junior college program

V. Job Satisfaction

Directions: Please respond to all statements. Be frank and honest! Give an accurate picture of your feelings about your present job.

Code: VS = I am very satisfied with this aspect of my job.

S = I am satisfied with this aspect of my job.

N = I can't decide whether I am satisfied or not with this aspect of my job.

DS = I am dissatisfied with this aspect of my job.

VDS = I am very dissatisfied with this aspect of my job.

On my present job this is how I feel about -

	VS	S	N	DS	VDS
21. The pay	[ ]	[ ]	[ ]	[ ]	[ ]
22. The amount of work I do	[ ]	[ ]	[ ]	[ ]	[ ]
23. The working conditions	[ ]	[ ]	[ ]	[ ]	[ ]
24. The tasks assigned to me	[ ]	[ ]	[ ]	[ ]	[ ]
25. The advancement I have made	[ ]	[ ]	[ ]	[ ]	[ ]
26. The possibilities of future advancement	[ ]	[ ]	[ ]	[ ]	[ ]
27. My relationships with co-workers	[ ]	[ ]	[ ]	[ ]	[ ]
28. My relationships with supervisors	[ ]	[ ]	[ ]	[ ]	[ ]
29. The fringe benefits	[ ]	[ ]	[ ]	[ ]	[ ]
30. Job security	[ ]	[ ]	[ ]	[ ]	[ ]
31. Nature of work (self-satisfying, challenging, etc.)	[ ]	[ ]	[ ]	[ ]	[ ]
32. Hours of work	[ ]	[ ]	[ ]	[ ]	[ ]
33. Other _____	[ ]	[ ]	[ ]	[ ]	[ ]

VI. Attitudes Toward Educational Programs at Jefferson High School

Directions: Read the question below and judge where it belongs on the scale. Place an "X" in one of the seven spaces on each scale. An example of how you might mark the scale is shown below:

How do you feel toward the health careers program as compared to the other vocational offerings at Jefferson High School?

unimportant ____: ____: ____: X : ____: ____: ____: important

In the example above, the former student placed an "X" in the fourth space which indicated that the statement appeared rather neutral.

How do you view the Health Careers Program at Jefferson High School as it relates to your present occupation?

valuable ____: ____: ____: ____: ____: ____: ____: worthless

34. desirable ____: ____: ____: ____: ____: ____: ____: undesirable

35. unnecessary ____: ____: ____: ____: ____: ____: ____: necessary

36. unimportant ____: ____: ____: ____: ____: ____: ____: important

37. ____: ____: ____: ____: ____: ____: ____:

VII. Subject Evaluation: Of the courses taken at Jefferson H. S. listed below, rate them according to their value to you in your present occupation. Please place an "X" in the appropriate space.

	Much Value	Some Value	Moderate Value	Little Value	No Value
38. English Composition	[ ]	[ ]	[ ]	[ ]	[ ]
39. Mathematics	[ ]	[ ]	[ ]	[ ]	[ ]
40. History	[ ]	[ ]	[ ]	[ ]	[ ]
41. Government	[ ]	[ ]	[ ]	[ ]	[ ]
42. Biology	[ ]	[ ]	[ ]	[ ]	[ ]
43. Physical Education	[ ]	[ ]	[ ]	[ ]	[ ]
44. Literature	[ ]	[ ]	[ ]	[ ]	[ ]

VIII. Health Careers Program

Directions: Please check the appropriate option.

45. To what extent did the Health Careers Program prepare you to work with your supervisors and fellow workers?

[ ] Excellent preparation
[ ] Adequate preparation
[ ] Some preparation
[ ] Little preparation
[ ] No preparation

46. To what extent did the Health Careers Program help you develop the necessary skills for your job?

[ ] Excellent preparation
[ ] Adequate preparation
[ ] Some preparation
[ ] Little preparation
[ ] No preparation

47. To what extent did the program prepare you for completing an application and job interview?

[ ] Excellent preparation
[ ] Adequate preparation
[ ] Some preparation
[ ] Little preparation
[ ] No preparation

48. To what extent did the Health Careers Program assist you in making a career decision?

[ ] No assistance
[ ] Little assistance
[ ] Some assistance
[ ] Moderate assistance
[ ] Major influence

49. I have been able to use the information and skills taught in the Health Careers Program in my home and family life.

[ ] Strongly agree
[ ] Agree
[ ] No opinion
[ ] Disagree
[ ] Strongly disagree

If you agree with statement 49, please give examples of how the information and skills have been useful.

_____
_____
_____
_____
_____
_____
_____

If you disagree with statement 48, please express your ideas as to what could have been presented to make the course useful.

_____
_____
_____
_____
_____
_____
_____

50. Considering all of your occupational experiences since leaving school, how well do you feel the Health Careers Program prepared you?

_____ Well prepared
_____ Satisfactorily prepared
_____ Inadequately prepared
_____ Totally unrelated to occupation

IX. Jefferson High School

Please rate your former school frankly on the items listed below by placing an "X" in the appropriate space.

		Excellent	Good	Fair	Poor
51.	Quality of vocational instruction	[ ]	[ ]	[ ]	[ ]
52.	Teacher interest in students	[ ]	[ ]	[ ]	[ ]
53.	Quality of academic instruction	[ ]	[ ]	[ ]	[ ]

X. Personal Adjustment:

Directions: Check the extent to which the following problems were of great concern to you immediately after leaving high school. Indicate your answer by rating the problem according to: much concern; little concern; no concern; does not apply.

Concern	Much Concern	Little Concern	No Concern	Does Not Apply
54. Finding a job				
55. Adjusting to work life				
56. Getting out on my own				
57. Adjusting to married life				
58. Financial problems				
59. Succeeding in college				
60. Others (please comment below)				

_____

_____

_____

XI. Salary

Directions: Please do not include overtime when calculating your weekly salary.

61.

First Job Weekly salary before taxes -	Present Job Weekly salary before taxes -
[ ] 1. Under $49	[ ] 1. Under $85
[ ] 2. $50 - $61	[ ] 2. $86 - $97
[ ] 3. $62 -$73	[ ] 3. $98 - $109
[ ] 4. $74 - $85	[ ] 4. $110 - $121
[ ] 5. $86 - $97	[ ] 5. $122 - $133
[ ] 6. $98 - $109	[ ] 6. $134 - 145
[ ] 7. $110 - $121	[ ] 7. $146 - 157
[ ] 8. $122 - $133	[ ] 8. $158 - 169
[ ] 9. $134	[ ] 9. $170 -

62. Please feel free to express any ideas or suggestions which you feel will improve the Health Careers Program.

_____

_____

_____

Appendix C

Dear

Thank you for your prompt reply to the Health Careers questionnaire. Your "surprise gift" will be mailed to you within the next few weeks.

Your reply to the questionnaire will help to supply information for improvement in the Health Careers course offerings of the Roanoke City Schools.

Sincerely,

Romona P. Williams

Dear

On October 18, 1974, I mailed you a questionnaire concerning the Health Careers Program at Jefferson High School. Would you please complete it as soon as possible and return it to me. Your assistance in this evaluation project is vital.

If you have misplaced the form, please call 981-2581 so that I may send you another form.

Sincerely,

Romona P. Williams

Appendix D

ROANOKE CITY PUBLIC SCHOOLS
JEFFERSON HIGH SCHOOL
550 CAMPBELL AVE., S.W.
ROANOKE, VIRGINIA 24016

OFFICE OF THE PRINCIPAL

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November 9, 1974

Dear Dana,

I hope you received the first questionnaire and have been thinking about it. I realize that this is a busy time of year but please take a few minutes to answer the questions which apply to you - even if you are not employed. It is very important that I hear from each former student. Your experiences ideas and suggestions are very important to the outcome of the study.

I am enclosing another questionnaire, a preaddressed stamped envelope and the orginal cover letter to explain the study. Please disregard the date in the letter to return the questionnaire but return as soon as possible.

Have a nice Thanksgiving. Give my regards to your Mother.

Sincerely,
Ramona Williams

ABSTRACT

This report is a follow-up study of secondary school students who had taken a Health Careers course at Jefferson Senior High School. The former students were surveyed by means of a questionnaire to determine how effective the Health Careers Program was in meeting its objectives and to provide data for decision making relative to program content, teaching strategy changes and program expansion.

A "closed form" survey questionnaire was sent to 128 former students with 87 percent return. An incentive gift was used to increase the percentage of return. The data collected was manually tabulated and analyzed.

It was found that 48 percent of the respondents were employed in the field of training and that part-time work experience as a student increased the related employment to 80 percent. Also revealed was that the part-time work experience increased the percentage of students who sought additional education. The program aided 88 percent of the students in making career choice and 79 percent of the students felt prepared for all occupational experiences. A high degree of job satisfaction was reported. The most frequent suggestion for course improvement was for more "hands on" experiences during class time. The program was effective in meeting its objectives. It was recommended that more study be done before a decision is made as to program expansion.

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